

**ENGINEERING STATEMENT  
IN SUPPORT OF COMMENTS BY  
CMCG PUERTO RICO LICENSE, LLC  
WMEI-DT CHANNEL 14 ARECIBO, PUERTO RICO**

**JANUARY 2007**

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**COMMUNICATIONS TECHNOLOGIES, INC. - BROADCAST ENGINEERING CONSULTANTS**

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### **ENGINEERING STATEMENT IN SUPPORT OF COMMENTS BY CMCG PUERTO RICO LICENSE, LLC WMEI-DT CHANNEL 14 ARECIBO, PUERTO RICO**

**JANUARY 2007**

#### **Engineering statement**

#### **Exhibits:**

- Exhibit I**      **Current CH 14 DTV allotment site OET-69 Study.**
- Exhibit II**    **Proposed CH 14 DTV allotment OET-69 Study based on NTSC transmitter site and an ERP of 350 kW.**

#### **Figures:**

- Figure 1**      **Horizontal Plane Pattern with tabulated data for FCC filing Purposes.**
- Figure 2**      **Horizontal Plane and Elevation Plane Pattern data for SWR SWDDPD 8-6-2-8/14D antenna system prepared by SWR, Inc.**

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**JANUARY 2007**

**SUMMARY**

The following engineering statement has been prepared on behalf of **CMCG Puerto Rico License, LLC** ("**CMCG**"), permittee for full service TV station WMEI, Channel 60, as authorized in BMPCT-20060614ABI. By this filing, **CMCG** seeks a modification to its DTV allotment, as found in Appendix B of the Seventh Further Notice of Proposed Rulemaking in MB Docket No. 87-268, released October 20, 2006 ("Seventh Further Notice").

It is noted that WMEI DTV operation is not anticipated to occur until the DTV transition as Channel 14 is currently utilized by WTIN Channel 14 Analog, BLCT 19971208KF, Ponce, Puerto Rico at a site 2.92 kilometers from the WMEI Channel 60 site. The WMEI Channel 60 NTSC site is located 48.1 kilometers from the WMEI Channel 14 DTV allotment coordinates. It is clearly in the public interest to comport the WMEI DTV facility to the WMEI operating site as the clear intent of the DTV proceeding has been to replicate NTSC service if not to improve service when possible.

**DTV ANALYSIS**

Population data specified in the Seventh Further Notice takes into account existing NTSC service. Since WMEI does not plan DTV operation prior to the transition, population data specified herein does not consider NTSC facilities other than to assure protection of Class A LPTV.

The Seventh Further Notice and proposed WMEI DTV facilities are compared below:

	<u>Seventh Further Notice</u>	<u>Proposed</u>
Facility ID	26676	26676
State and City	Arecibo, PR	Arecibo, PR
Channel	14	14
ERP (kW)	50	350
HAAT (m)	240	839
RC AMSL (m)	360	1328
Antenna ID	74697	---
Latitude (DDMMSS)	182721	180917
Longitude (DDMMSS)	665259	663316
Area (sq. km)	14,618.7	39,973.6
Population (persons)	1,154,735	3,529,824
% Received Interference	12.6%	1.44%

Exhibit I, attached, is an OET-69 analysis for the Seventh Further Notice Channel 14 allotment facility while Exhibit II, attached, is an OET-69 analysis for the proposed Channel 14 DTV allotment facility. The proposed allotment facility would have no impact on WTIN-DT Channel 15, BMPCDT-20040803ABE as the Seventh Further Notice population is 3,364,000 and the computed population, with the WMEI proposal considered, would be 3,418,039 persons. No interference to WSJN-CA was found. The proposed allotment site removes the current spacing violation to WTIN-DT.

#### **PUBLIC INTEREST**

Amending the proposed Table of Allotments to incorporate the WMEI proposal achieves the following public interest and allocation benefits:

1. Spacing violation to WTIN-DT Channel 15 removed. The current Channel 14 allotment site is located 45.3 km from WTIN-DT CH 15 DTV site while the WMEI proposed site is located 2.9 kilometers from the WTIN-DT site.
2. New DTV service to 2,375,089 persons representing a 305.68% increase in population served.
3. Consolidation of the NTSC and DTV allotments at one site location.
4. No new interference to other stations when compared to Seventh Further Notice values.

**CONCLUSION**

The foregoing was prepared on behalf of **CMCG Puerto Rico License, LLC** by Clarence M. Beverage of *Communications Technologies, Inc.*, Marlton, New Jersey, whose qualifications are a matter of record with the Federal Communications Commission. The undersigned certifies, under penalty of perjury, that the statements herein are true and correct of his own knowledge, except such statements made on information and belief, and as to these statements he believes them to be true and correct.

By 

**Clarence M. Beverage**  
for *Communications Technologies, Inc.*  
Marlton, New Jersey

January 25, 2007

## Exhibit I

## TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 12-28-2006 Time: 13:40:22

Record Selected for Analysis

WMEI USERRECORD-01 ARECIBO PR US  
 Channel 14 ERP 50. kW HAAT 240. m RCAMSL 00360 m  
 Latitude 018-27-21 Longitude 0066-52-59  
 Status APP Zone 2 Border  
 Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.  
 Last update Cutoff date Docket  
 Comments  
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility meets maximum height/power limits

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	50.000	359.1	79.6
45.0	50.000	353.7	79.1
90.0	50.000	282.2	73.0
135.0	50.000	131.6	62.0
180.0	50.000	65.3	54.2
225.0	50.000	155.3	63.9
270.0	50.000	219.1	68.5
315.0	50.000	355.9	79.3

Evaluation toward Class A Stations

No Spacing violations or contour overlap to Class A stations

Class A Evaluation Complete

SPACING VIOLATION FOUND BETWEEN STATION

WMEI 14 ARECIBO  
and station

PR USERRECORD01

SHORT TO: WTIN-DT 15 PONCE  
18-10-11 66-34-38

PR DTVPLN DTVP0189

Req. separation => 24.0 <= 110.0 Actual separation 45.3 Short 64.7 ( 21.3) km

SHORT TO: WTIN 15 PONCE  
018-10-10 0066-34-36

PR BMPCDT 20040803ABE

Req. separation => 24.0 <= 110.0 Actual separation 45.3 Short 64.7 ( 21.3) km

LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility OK to FCC Monitoring Stations

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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 Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
14	WMEI	ARECIBO PR	USERRECORD01

Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN-DT	PONCE PR	45.3	PLN	DTVPLN	-DTVP0189
15	WTIN	PONCE PR	45.4	CP MOD	BMPCDT	-20040803ABE
15	WSJN-CA	SAN JUAN PR	77.8	LIC	BLTTL	-19940223IC

%%%

Analysis of Interference to Affected Station 1

DTV Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
15	WTIN-DT	PONCE PR	DTVPLN	-DTVP0189

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	NEW	CHRISTIANSTED VI	193.6	PLN	DTVPLN	-NPLN0940
16	WMTJ-DT	FAJARDO PR	84.1	PLN	DTVPLN	-DTVP0239
16	WTRA	MAYAGUEZ PR	65.6	PLN	DTVPLN	-NPLN0965

Results for: 15A PR PONCE      DTVPLN      DTVP0189      PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	74683	484.5
lost to additional IX by ATV	63031	116.1
lost to ATV IX only	87401	224.2
lost to all IX	137714	600.6

Analysis of current record

Channel	Call	City/State	Application	Ref. No.
15	WTIN-DT	PONCE PR	DTVPLN	-DTVP0189

Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
16	WMTJ	FAJARDO PR	84.1	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	84.1	PLN	DTVPLN	-DTVP0239
14	WMEI	ARECIBO PR	45.3	APP	USERRECORD-01	

Total scenarios = 4



Result key: 1  
 Scenario 1 Affected station 1  
 Before Analysis

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN

HAAT 861.0 m, ATV ERP 50.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	98791	428.5
lost to ATV IX only	98791	428.5
lost to all IX	98791	428.5

Potential Interfering Stations Included in above Scenario 1

16A PR FAJARDO BMPEDT 20030324ACY CP

After Analysis

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN

HAAT 861.0 m, ATV ERP 50.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	105186	480.5
lost to ATV IX only	105186	480.5
lost to all IX	105186	480.5

Potential Interfering Stations Included in above Scenario 1

16A PR FAJARDO BMPEDT 20030324ACY CP

14A PR ARECIBO USERRECORD01

APP

\*Percent Service lost without proposal: -1.2 to DTVPLN DTVP0189

\*Percent Service lost with proposal: -1.0 to DTVPLN DTVP0189

Result key: 2  
 Scenario 2 Affected station 1  
 Before Analysis

Results for: 15A PR PONCE DTVELN DTVP0189 PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	87401	224.2
lost to ATV IX only	87401	224.2
lost to all IX	87401	224.2

Potential Interfering Stations Included in above Scenario 2

16A PR FAJARDO DTVELN DTVP0239 PLN

After Analysis

Results for: 15A PR PONCE DTVELN DTVP0189 PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	93796	276.3
lost to ATV IX only	93796	276.3
lost to all IX	93796	276.3

Potential Interfering Stations Included in above Scenario 2

16A PR FAJARDO DTVELN DTVP0239 PLN  
 14A PR ARECIBO USERRECORD01 APP

*Percent Service lost without proposal:	-1.5	to DTVELN	DTVP0189
*Percent Service lost with proposal:	-1.3	to DTVELN	DTVP0189

Result key: 3  
 Scenario 3 Affected station 1  
 Before Analysis

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	98791	428.5
lost to ATV IX only	98791	428.5
lost to all IX	98791	428.5

Potential Interfering Stations Included in above Scenario 3

16A PR FAJARDO BMPEDT 20030324ACY CP

After Analysis

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	105186	480.5
lost to ATV IX only	105186	480.5
lost to all IX	105186	480.5

Potential Interfering Stations Included in above Scenario 3

16A PR FAJARDO BMPEDT 20030324ACY CP

14A PR ARECIBO USERRECORD01 APP

\*Percent Service lost without proposal: -1.2 to DTVPLN DTVP0189

\*Percent Service lost with proposal: -1.0 to DTVPLN DTVP0189

Result key: 4  
 Scenario 4 Affected station 1  
 Before Analysis

Results for: 15A PR PONCE DTVP0189 PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	87401	224.2
lost to ATV IX only	87401	224.2
lost to all IX	87401	224.2

Potential Interfering Stations Included in above Scenario 4

16A PR FAJARDO DTVP0239 PLN

After Analysis

Results for: 15A PR PONCE DTVP0189 PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	93796	276.3
lost to ATV IX only	93796	276.3
lost to all IX	93796	276.3

Potential Interfering Stations Included in above Scenario 4

16A PR FAJARDO DTVP0239 PLN  
 14A PR ARECIBO USERRECORD01 APP

\*Percent Service lost without proposal: -1.5 to DTVP0189  
 \*Percent Service lost with proposal: -1.3 to DTVP0189

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## Analysis of Interference to Affected Station 2

### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
15	WTIN	PONCE PR	BMPCDT	-20040803ABE

### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
16	WMTJ	FAJARDO PR	84.0	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	84.0	PLN	DTVPLN	-DTVP0239
14	WMEI	ARECIBO PR	45.4	APP	USERRECORD-01	

Total scenarios = 4

Result key: 5  
 Scenario 1 Affected station 2  
 Before Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP

	POPULATION	AREA (sq km)
HAAT 839.0 m, ATV ERP 380.2 kW		
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	145559	572.6
lost to ATV IX only	145559	572.6
lost to all IX	145559	572.6

Potential Interfering Stations Included in above Scenario 1

16A PR FAJARDO BMPEDT 20030324ACY CP

### After Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP

	POPULATION	AREA (sq km)
HAAT 839.0 m, ATV ERP 380.2 kW		
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	149351	584.6
lost to ATV IX only	149351	584.6
lost to all IX	149351	584.6

Potential Interfering Stations Included in above Scenario 1

16A PR FAJARDO BMPEDT 20030324ACY CP

14A PR ARECIBO USERRECORD01 APP

\*Percent Service lost without proposal: -3.4 to BMPCDT 20040803ABE

\*Percent Service lost with proposal: -3.3 to BMPCDT 20040803ABE

Result key: 6  
 Scenario 2 Affected station 2  
 Before Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP  
 HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	105843	248.3
lost to ATV IX only	105843	248.3
lost to all IX	105843	248.3

Potential Interfering Stations Included in above Scenario 2

16A PR FAJARDO DTVPLN DTVP0239 PLN

After Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP  
 HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	109635	260.3
lost to ATV IX only	109635	260.3
lost to all IX	109635	260.3

Potential Interfering Stations Included in above Scenario 2

16A PR FAJARDO DTVPLN DTVP0239 PLN

14A PR ARECIBO USERRECORD01 APP

\*Percent Service lost without proposal: -4.6 to BMPCDT 20040803ABE  
 \*Percent Service lost with proposal: -4.5 to BMPCDT 20040803ABE

Result key: 7  
 Scenario 3 Affected station 2  
 Before Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP

HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	145559	572.6
lost to ATV IX only	145559	572.6
lost to all IX	145559	572.6

Potential Interfering Stations Included in above Scenario 3

16A PR FAJARDO BMPEDT 20030324ACY CP

After Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP

HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	149351	584.6
lost to ATV IX only	149351	584.6
lost to all IX	149351	584.6

Potential Interfering Stations Included in above Scenario 3

16A PR FAJARDO BMPEDT 20030324ACY CP

14A PR ARECIBO USERRECORD01 APP

\*Percent Service lost without proposal: -3.4 to BMPCDT 20040803ABE

\*Percent Service lost with proposal: -3.3 to BMPCDT 20040803ABE

Result key: 8  
 Scenario 4 Affected station 2  
 Before Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP  
 HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	105843	248.3
lost to ATV IX only	105843	248.3
lost to all IX	105843	248.3

Potential Interfering Stations Included in above Scenario 4

16A PR FAJARDO DTVP LN DTVP0239 PLN

After Analysis

Results for: 15A PR PONCE BMPCDT 20040803ABE CP  
 HAAT 839.0 m, ATV ERP 380.2 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3797251	43122.5
not affected by terrain losses	3580275	42477.8
lost to NTSC IX	0	0.0
lost to additional IX by ATV	109635	260.3
lost to ATV IX only	109635	260.3
lost to all IX	109635	260.3

Potential Interfering Stations Included in above Scenario 4

16A PR FAJARDO DTVP LN DTVP0239 PLN

14A PR ARECIBO USERRECORD01 APP

\*Percent Service lost without proposal: -4.6 to BMPCDT 20040803ABE

\*Percent Service lost with proposal: -4.5 to BMPCDT 20040803ABE



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### Analysis of Interference to Affected Station 3

#### Analysis of current record

Channel	Call	City/State	Application	Ref. No.
15	WSJN-CA	SAN JUAN PR	BLTTL	-19940223IC

#### Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN-DT	PONCE PR	45.6	PLN	DTVPLN	-DTVP0189
15	WTIN	PONCE PR	45.6	CP MOD	BMPCDT	-20040803ABE
16	WMTJ	FAJARDO PR	39.2	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	39.2	PLN	DTVPLN	-DTVP0239
17	WVEO-DT	AGUADILLA PR	106.9	PLN	DTVPLN	-DTVP0278
17	WVEO	AGUADILLA PR	106.9	CP MOD	BMPCDT	-20060705ABD
19	WKPV	PONCE PR	66.0	CP MOD	BMPCDT	-20040318ABY
19	WKPV-DT	PONCE PR	65.9	PLN	DTVPLN	-DTVP0369
23	WNJX-TV	MAYAGUEZ PR	87.8	CP MOD	BMPCDT	-20040115ACG
23	WNJX-DT	MAYAGUEZ PR	88.4	PLN	DTVPLN	-DTVP0540
29	WORA-DT	MAYAGUEZ PR	88.4	PLN	DTVPLN	-DTVP0763
29	WORA-TV	MAYAGUEZ PR	88.4	CP MOD	BMPCDT	-20060414AAR
30	WSJU-TV	SAN JUAN PR	7.9	LIC	BLCT	-19841129LB
14	WMEI	ARECIBO PR	77.8	APP	USERRECORD-01	

Proposal causes no interference

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# Analysis of Interference to Affected Station 4

## Analysis of current record

Channel	Call	City/State	Application Ref. No.
14	WMEI	ARECIBO PR	USERRECORD-01

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application Ref. No.
15	WTIN-DT	PONCE PR	45.3	PLN	DTVPLN -DTVP0189
15	WTIN	PONCE PR	45.4	CP MOD	BMPCDT -20040803ABE

Total scenarios = 2

Result key: 9  
 Scenario 1 Affected station 4  
 Before Analysis

Results for: 14A PR ARECIBO USERRECORD01 APP

HAAT 240.0 m, ATV ERP 50.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1813057	16971.2
not affected by terrain losses	1320877	15549.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	139341	575.2
lost to ATV IX only	139341	575.2
lost to all IX	139341	575.2

Potential Interfering Stations Included in above Scenario 1

15A PR PONCE DTVPLN DTVP0189 PLN

Result key: 10  
 Scenario 2 Affected station 4  
 Before Analysis

Results for: 14A PR ARECIBO USERRECORD01 APP

HAAT 240.0 m, ATV ERP 50.0 kW	POPULATION	AREA (sq km)
within Noise Limited Contour	1813057	16971.2
not affected by terrain losses	1320877	15549.3
lost to NTSC IX	0	0.0
lost to additional IX by ATV	166142	930.6
lost to ATV IX only	166142	930.6
lost to all IX	166142	930.6

Potential Interfering Stations Included in above Scenario 2

15A PR PONCE BMPCDT 20040803ABE CP

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 FINISHED FINISHED FINISHED FINISHED FINISHED FINISHED

## Exhibit II

## TV INTERFERENCE and SPACING ANALYSIS PROGRAM

Date: 12-05-2006 Time: 17:47:27

Record Selected for Analysis

WMEI USERRECORD-01 ARECIBO PR US  
 Channel 14 ERP 350. kW HAAT 839. m RCAMSL 01328 m  
 Latitude 018-09-17 Longitude 0066-33-16  
 Status APP Zone 2 Border  
 Dir Antenna Make usr Model USRPAT01 Beam tilt N Ref Azimuth 0.  
 Last update Cutoff date Docket  
 Comments  
 Applicant

Cell Size for Service Analysis 2.0 km/side

Distance Increments for Longley-Rice Analysis 1.00 km

Facility does not meet maximum height/power limits  
 Channel 14 ERP = 350.00 HAAT = 839.

Azimuth (Deg)	ERP (kW)	HAAT (m)	41.0 dBu F(50,90) (km)
0.0	177.929	703.5	109.3
45.0	309.260	659.5	112.4
90.0	84.329	762.2	104.8
135.0	126.405	1048.1	117.2
180.0	16.441	1128.7	99.5
225.0	33.623	1021.2	103.6
270.0	214.033	585.0	105.8
315.0	321.311	800.2	118.7

## Evaluation toward Class A Stations

Contour overlap to Class A station

WSJN-CA 15 SAN JUAN PR BLTTL 19940223IC

D/U ratio at contour -14.50 dB

Offset Proposed Offset Class A N Required D/U ratio: -14.0

Radial 252.0 degrees

Bearing to point on contour 68.2 degrees

D/U ratio at contour -15.16 dB

Radial 253.0 degrees

Bearing to point on contour 67.7 degrees

D/U ratio at contour -15.35 dB

Radial 254.0 degrees

Bearing to point on contour 67.3 degrees

D/U ratio at contour -15.42 dB

Radial 255.0 degrees

Bearing to point on contour 66.9 degrees

D/U ratio at contour -15.39 dB

Radial 256.0 degrees

Bearing to point on contour 66.5 degrees

D/U ratio at contour -15.31 dB

Radial 257.0 degrees

Bearing to point on contour 66.2 degrees

D/U ratio at contour -15.26 dB

Radial 258.0 degrees

Bearing to point on contour 65.9 degrees

D/U ratio at contour -15.62 dB

Radial 259.0 degrees

Bearing to point on contour 65.3 degrees

D/U ratio at contour -16.08 dB

Radial 260.0 degrees

Bearing to point on contour 64.7 degrees

D/U ratio at contour -16.71 dB

Radial 261.0 degrees

Bearing to point on contour 63.7 degrees

D/U ratio at contour -17.59 dB

Radial 262.0 degrees

Bearing to point on contour 62.5 degrees

D/U ratio at contour -18.56 dB

Radial 263.0 degrees

Bearing to point on contour 61.0 degrees

D/U ratio at contour -19.39 dB

Radial 264.0 degrees

Bearing to point on contour 59.5 degrees

D/U ratio at contour -20.06 dB

Radial 265.0 degrees

Bearing to point on contour 57.8 degrees

D/U ratio at contour -20.49 dB

Radial 266.0 degrees

Bearing to point on contour 56.6 degrees

D/U ratio at contour -20.88 dB

Radial 267.0 degrees

Bearing to point on contour 55.2 degrees

D/U ratio at contour -21.79 dB

Radial 268.0 degrees  
Bearing to point on contour 53.0 degrees  
D/U ratio at contour -22.59 dB  
Radial 269.0 degrees  
Bearing to point on contour 50.8 degrees  
D/U ratio at contour -23.02 dB  
Radial 270.0 degrees  
Bearing to point on contour 49.0 degrees  
D/U ratio at contour -23.42 dB  
Radial 271.0 degrees  
Bearing to point on contour 46.8 degrees  
D/U ratio at contour -23.78 dB  
Radial 272.0 degrees  
Bearing to point on contour 44.1 degrees  
D/U ratio at contour -24.02 dB  
Radial 273.0 degrees  
Bearing to point on contour 41.9 degrees  
D/U ratio at contour -24.18 dB  
Radial 274.0 degrees  
Bearing to point on contour 39.9 degrees  
D/U ratio at contour -24.37 dB  
Radial 275.0 degrees  
Bearing to point on contour 37.9 degrees  
D/U ratio at contour -24.56 dB  
Radial 276.0 degrees  
Bearing to point on contour 35.7 degrees  
D/U ratio at contour -24.66 dB  
Radial 277.0 degrees  
Bearing to point on contour 33.6 degrees  
D/U ratio at contour -24.49 dB  
Radial 278.0 degrees  
Bearing to point on contour 31.8 degrees  
D/U ratio at contour -24.42 dB  
Radial 279.0 degrees  
Bearing to point on contour 30.0 degrees  
D/U ratio at contour -24.10 dB  
Radial 280.0 degrees  
Bearing to point on contour 28.8 degrees  
D/U ratio at contour -23.79 dB  
Radial 281.0 degrees  
Bearing to point on contour 27.8 degrees  
D/U ratio at contour -23.44 dB  
Radial 282.0 degrees  
Bearing to point on contour 27.6 degrees  
D/U ratio at contour -23.17 dB  
Radial 283.0 degrees  
Bearing to point on contour 26.8 degrees  
D/U ratio at contour -22.92 dB  
Radial 284.0 degrees  
Bearing to point on contour 25.7 degrees  
D/U ratio at contour -22.61 dB  
Radial 285.0 degrees  
Bearing to point on contour 24.5 degrees  
D/U ratio at contour -22.21 dB  
Radial 286.0 degrees  
Bearing to point on contour 23.5 degrees  
D/U ratio at contour -21.75 dB

Radial 287.0 degrees  
Bearing to point on contour 22.4 degrees  
D/U ratio at contour -21.18 dB  
Radial 288.0 degrees  
Bearing to point on contour 21.3 degrees  
D/U ratio at contour -20.59 dB  
Radial 289.0 degrees  
Bearing to point on contour 20.1 degrees  
D/U ratio at contour -19.85 dB  
Radial 290.0 degrees  
Bearing to point on contour 18.8 degrees  
D/U ratio at contour -19.25 dB  
Radial 291.0 degrees  
Bearing to point on contour 17.8 degrees  
D/U ratio at contour -18.80 dB  
Radial 292.0 degrees  
Bearing to point on contour 17.3 degrees  
D/U ratio at contour -18.37 dB  
Radial 293.0 degrees  
Bearing to point on contour 17.1 degrees  
D/U ratio at contour -17.96 dB  
Radial 294.0 degrees  
Bearing to point on contour 16.7 degrees  
D/U ratio at contour -17.50 dB  
Radial 295.0 degrees  
Bearing to point on contour 16.1 degrees  
D/U ratio at contour -17.07 dB  
Radial 296.0 degrees  
Bearing to point on contour 15.7 degrees  
D/U ratio at contour -16.67 dB  
Radial 297.0 degrees  
Bearing to point on contour 15.5 degrees  
D/U ratio at contour -16.31 dB  
Radial 298.0 degrees  
Bearing to point on contour 15.5 degrees  
D/U ratio at contour -15.97 dB  
Radial 299.0 degrees  
Bearing to point on contour 15.6 degrees  
D/U ratio at contour -15.63 dB  
Radial 300.0 degrees  
Bearing to point on contour 15.7 degrees  
D/U ratio at contour -15.29 dB  
Radial 301.0 degrees  
Bearing to point on contour 15.9 degrees  
D/U ratio at contour -14.91 dB  
Radial 302.0 degrees  
Bearing to point on contour 15.8 degrees  
D/U ratio at contour -14.52 dB  
Radial 303.0 degrees  
Bearing to point on contour 15.7 degrees  
D/U ratio at contour -14.18 dB  
Radial 304.0 degrees  
Bearing to point on contour 15.8 degrees

Class A Evaluation Complete

No spacing violations found to other full service stations

# LANDMOBILE SPACING VIOLATIONS FOUND

NONE

Proposed facility is 25.0km from FCC Monitoring station at  
 Santa Isabel PR  
 Bearing: 130.9 degrees ERP: 145.44 kW HAAT: 998.9 m  
 Field = 61.3 mV/m

Proposed facility OK toward West Virginia quite zone

Proposed facility OK toward Table Mountain

Proposed facility is beyond the Canadian coordination distance

Proposed facility is beyond the Mexican coordination distance

Proposed station is OK toward AM broadcast stations

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## Start of Interference Analysis

Channel	Proposed Station Call	City/State	ARN
14	WMEI	ARECIBO PR	USERRECORD01

## Stations Potentially Affected by Proposed Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN-DT	PONCE PR	2.9	PLN	DTVPLN	-DTVP0189
15	WTIN-DT	PONCE PR	2.9	MAX	DTVPLN	-DTVP0189
15	WTIN	PONCE PR	2.9	CP MOD	BMPCDT	-20040803ABE
15	WSJN-CA	SAN JUAN PR	43.9	LIC	BLTTL	-19940223IC

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## Analysis of Interference to Affected Station 1

## DTV Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
15	WTIN-DT	PONCE PR	DTVPLN	-DTVP0189

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
14	WTIN	PONCE PR	0.0	PLN	DTVPLN	-NPLN0900
15	NEW	CHRISTIANSTED VI	193.6	PLN	DTVPLN	-NPLN0940
16	WMTJ-DT	FAJARDO PR	84.1	PLN	DTVPLN	-DTVP0239
16	WTRA	MAYAGUEZ PR	65.6	PLN	DTVPLN	-NPLN0965

Results for: 15A PR PONCE      DTVPLN      DTVP0189      PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	74683	484.5
lost to additional IX by ATV	63031	116.1
lost to ATV IX only	87401	224.2
lost to all IX	137714	600.6

## NTSC Baseline Analysis

Channel	Call	City/State	Application	Ref. No.
14	WTIN	PONCE PR	DTVPLN	-NPLN0900

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
15	WTIN-DT	PONCE PR	0.0	PLN	DTVPLN	-DTVP0189
15	NEW	CHRISTIANSTED VI	193.6	PLN	DTVPLN	-NPLN0940
16	WMTJ-DT	FAJARDO PR	84.1	PLN	DTVPLN	-DTVP0239
16	WTRA	MAYAGUEZ PR	65.6	PLN	DTVPLN	-NPLN0965
17	WVEO-DT	AGUADILLA PR	65.6	PLN	DTVPLN	-DTVP0278
18	WSJU	SAN JUAN PR	84.1	PLN	DTVPLN	-NPLN1029
21	WSJN-DT	SAN JUAN PR	77.3	PLN	DTVPLN	-DTVP0454
22	WNJXTV	MAYAGUEZ PR	43.5	PLN	DTVPLN	-NPLN1155
28	WKAQ-DT	SAN JUAN PR	55.7	PLN	DTVPLN	-DTVP0724
29	WORA-DT	MAYAGUEZ PR	43.6	PLN	DTVPLN	-DTVP0763

Results for: 14N PR PONCE      DTVPLN      NPLN0900      PLN

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3284959	33011.6
lost to NTSC IX	107975	376.4
lost to additional IX by ATV	110029	400.4
lost to all IX	218004	776.8



## Analysis of current record

Channel	Call	City/State	Application	Ref. No.
15	WTIN-DT	PONCE PR	DTVPLN	-DTVP0189

## Stations Potentially Affecting This Station

Chan	Call	City/State	Dist(km)	Status	Application	Ref. No.
16	WMTJ	FAJARDO PR	84.1	CP MOD	BMPEDT	-20030324ACY
16	WMTJ-DT	FAJARDO PR	84.1	PLN	DTVPLN	-DTVP0239
14	WMEI	ARECIBO PR	2.9	APP	USERRECORD-01	

Total scenarios = 4

Result key: 1  
 Scenario 1 Affected station 1  
 Before Analysis

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	98791	428.5
lost to ATV IX only	98791	428.5
lost to all IX	98791	428.5

Potential Interfering Stations Included in above Scenario 1

16A PR FAJARDO BMPEDT 20030324ACY CP

## After Analysis

Results for: 15A PR PONCE DTVPLN DTVP0189 PLN  
 HAAT 861.0 m, ATV ERP 50.0 kW

	POPULATION	AREA (sq km)
within Noise Limited Contour	3735741	34733.4
not affected by terrain losses	3459968	33800.4
lost to NTSC IX	0	0.0
lost to additional IX by ATV	123418	660.7
lost to ATV IX only	123418	660.7
lost to all IX	123418	660.7

Potential Interfering Stations Included in above Scenario 1

16A PR FAJARDO BMPEDT 20030324ACY CP  
 14A PR ARECIBO USERRECORD01 APP  
 \*Percent Service lost without proposal: -1.2 to DTVPLN DTVP0189  
 \*Percent Service lost with proposal: -0.4 to DTVPLN DTVP0189